

County Economic Performance Index

A dynamic and ongoing measurement of regional economic activity

**National Economic Research and Resilience Center
Decision and Infrastructure Sciences Division**



About Argonne National Laboratory

Argonne is a U.S. Department of Energy laboratory managed by UChicago Argonne, LLC under contract DE-AC02-06CH11357. The Laboratory's main facility is outside Chicago, at 9700 South Cass Avenue, Argonne, Illinois 60439. For information about Argonne and its pioneering science and technology programs, see www.anl.gov.

DOCUMENT AVAILABILITY

Online Access: U.S. Department of Energy (DOE) reports produced after 1991 and a growing number of pre-1991 documents are available free at OSTI.GOV (<http://www.osti.gov/>), a service of the US Dept. of Energy's Office of Scientific and Technical Information.

Reports not in digital format may be purchased by the public from the National Technical Information Service (NTIS):

U.S. Department of Commerce
National Technical Information
Service 5301 Shawnee Rd
Alexandria, VA 22312
www.ntis.gov
Phone: (800) 553-NTIS (6847) or (703) 605-6000
Fax: (703) 605-6900
Email: orders@ntis.gov

Reports not in digital format are available to DOE and DOE contractors from the Office of Scientific and Technical Information (OSTI):

U.S. Department of Energy
Office of Scientific and Technical Information
P.O. Box 62
Oak Ridge, TN 37831-0062
www.osti.gov
Phone: (865) 576-8401
Fax: (865) 576-5728
Email: reports@osti.gov

Disclaimer

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor UChicago Argonne, LLC, nor any of their employees or officers, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of document authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof, Argonne National Laboratory, or UChicago Argonne, LLC

County Economic Performance Index

A dynamic and ongoing measurement of regional economic activity

prepared by

Braeton Smith¹, Matthew Riddle², Parfait Gasana¹, and Iain Hyde¹

¹ Decision and Infrastructure Sciences Division

² Energy Systems and Infrastructure Analysis Division

Argonne National Laboratory

March 2024

Acknowledgements

The original version of this index was developed by Argonne National Laboratory (Argonne) with support from The Federal Emergency Management Agency (FEMA). The updated version of this index was developed by Argonne using Federal funds under award ED22HDQ3120191 from the U.S. Economic Development Administration, U.S. Department of Commerce. The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of the U.S. Economic Development Administration or the U.S. Department of Commerce.

Executive Summary

What is the County Economic Performance Index (CEPI)?

Disruptive events often result in significant changes in employment, personal income, industry output, and other measures of economic well-being and activity. Depending on the nature of the disruption, economic consequences can be relatively short-lived or they can linger for months or years. Argonne National Laboratory (Argonne) developed the CEPI (originally named the County Economic Impact Index, or CEII), to track monthly economic activity levels in local economies across the United States following national-level disruptive events (namely, the COVID-19 pandemic). As such, it also provides insight into economic activity and recovery over time. A CEPI value of 1 indicates that a county's economy is in the same position as it was in the selected base period, while scores below 1 indicate that economic activity has declined and scores greater than 1 indicate that economic activity has since grown.

What Does the CEPI Measure?

The CEPI estimates changes in overall county-level economic activity relative to a defined base period. It shows which counties may be more susceptible to large reductions or gains in economic activity compared to normal conditions by looking at which industries make up each county's economy and then tracking monthly changes in industry employment at the national level. Economic activity in the CEPI is measured by the total value added of all industries within the county, also referred to as the county's Gross Regional Product (GRP)¹. Accordingly, the CEPI data also includes annualized monthly estimates of county-level value added for more than 100 industries. Counties with economic activities dominated by industries experiencing rising unemployment can expect larger direct impacts to their local economies, particularly if the industries account for a large portion of the economic output of that county. Results are updated monthly and available for all U.S. counties, as well as the District of Columbia, Puerto Rico municipios, and the U.S. Virgin Islands.

Why Is the CEPI Important?

The CEPI provides the ability to monitor trends over time of the economic health of counties in the United States. One way to measure overall economic activity in a region is through its gross regional product (GRP), or the monetary value of all final goods and services produced in a regional economy in a given year. GRP can also be thought of as the total sum of the value added by each industry in an economy. Higher GRP values are associated with more economic activity in a region, while lower values are associated with less economic activity. For this reason, GRP (and GDP) is often used as an assessment of a regional economy's overall size and health. While not a perfect indicator of overall economic wellbeing, increasing GRP over time generally implies an economy is experiencing more economic activity (i.e. more production of final goods and services, higher levels of personal expenditure and investment, higher wages and profits, government purchases, etc.). Decreases in GRP may imply that an economy is experiencing higher levels of unemployment, lower wages, lower profits, and overall less production and spending in the economy. As such, CEPI values lower than 1 imply that more

¹ Gross Regional Product (GRP) refers to the economic output of a region, while Gross Domestic Product (GDP) is the entire domestic output of a nation. By definition, a nation's GDP is the equal to the sum of the GRP of all regions within it.

people are unemployed (due to fewer jobs) and businesses are producing and earning less than they were prior to a given base period.

How Can I Use the CEPI?

You can use the CEPI to check on the current or trending economic activity in your local area. The CEPI also provides insight into economic activity within individual industries. The CEPI data can be accessed within the National Economic Resilience Data Explorer [at this link](#).

Introduction

The ability of a region to attract and sustain a vibrant local population and high quality of life is directly related to its overall levels of economic activity. Economic activity, within the context of this index, is a measurement of the amount of production, sales, and purchases occurring in an economy, and is linked to a region's economic performance. For example, a region with high unemployment, lower wages and personal income, and lower industry sales will in general provide fewer opportunities for the people who live there, may have a lower quality of life, and may experience difficulty attracting new investment.

Released previously as the County Economic Impact Index (or the CEII), this technical report introduces Argonne's County Economic Performance Index (CEPI).² The goal of the CEII was to identify regions whose local economies were most adversely affected during and following the COVID-19 pandemic with near real-time (and readily available) data and track their recovery over time relative to January 2020. While similar in concept, the CEPI employs a flexible baseline to track economic activity over a specific period or outcomes from different national-scale disruptive events. The index shows county-level economic activity changes over time compared to a specified period by accounting for the industrial make-up of each county's economy and tracking monthly changes in national employment by industry. For example, counties with economic activities dominated by industries experiencing relatively large increases in unemployment can expect decreasing index values, particularly if the industries are high-value.

One way to measure overall economic activity in a region is through its contribution to gross domestic product (GDP), specifically its "gross regional product" (GRP) or "regional GDP", which is the monetary value of all final goods and services produced in the economy in a given year. Higher GRP values are associated with more economic activity in a region, while lower values are associated with less economic activity. For this reason, GRP is often used as an assessment of a regional economy's overall size and health. While not a perfect indicator of overall economic wellbeing, increasing GRP over time generally implies that an economy is experiencing more economic activity (i.e. more production of final goods and services, higher levels of personal expenditure and investment, government purchases, etc.), while decreases in GRP imply that an economy is shrinking.³ Decreases in GRP may imply that an economy is experiencing higher levels of unemployment, lower incomes, and overall less production and spending in the economy. Traditionally, government economists have officially recognized an economic downturn as a recession after two consecutive quarters of negative growth.

² Smith, Braeton, Riddle, Matthew, Wagner, Amanda, Edgemon, Lesley, Burdi, Carmella, and Hyde, Iain. 2021. "County Economic Impact Index: Measuring the ongoing economic effects of COVID-19". United States. <https://doi.org/10.2172/1822927>. <https://www.osti.gov/servlets/purl/1822927>.

³ Increases in GDP may not necessarily be associated with other positive changes in economic wellbeing like reduced unemployment. For example, if increased GDP is achieved by investments in automation and other efficiency-improving capital rather than increases in output, employment losses could be an important consideration of economic wellbeing in addition to any productivity gains implied by GDP growth.

There are a few different approaches to measuring GDP that evaluate the total contributions of separate components. These include the expenditure, income, and output approaches.⁴ The expenditure approach measures total consumer expenditures, government purchases, capital and real estate investments, and imports and exports. The income approach measures the income from all factors of production in an economy, such as employee compensation and business gross operating surplus. The output, or value-added, approach measures the total value of all final goods and services and services produced in an economy; in other words, it is the sum total of the value added by each industry. The CEPI is based on this approach.

Value-added is the total output of an industry minus its inputs. For example, if a factory purchases steel for \$2,000 that it turns into a vehicle worth \$10,000, its total output is \$10,000 while its value-added is \$8,000. As such, an industry's value-added is a representation of its value to an economy. Decreases in a specific industry's value-added mean that it is adding less value to an economy, either because it is selling and producing fewer goods and services (which may be an indicator of reduced consumer income and demand), or because the inputs (such as labor, capital, energy, materials, etc.) it relies on have become more costly relative to its sales. While other measures of economic wellbeing are certainly important, decreases in a region's total value-added imply less overall economic activity, an indicator of potentially challenging economic conditions for the people who live and work there.

Method

The CEPI represents the current (or near-current) level of economic activity in a county relative to a user-selected base period. As such, the first step in calculating the CEPI is calculating the baseline economic activity by industry (represented here as value-added) at the county level since data is not readily available at this level. Value-added for each county c and industry i is calculated for the base period as the value-added for the country as a whole multiplied by the share of national employment in industry i in county c in the base period (note, the sum over all industries is the county's total value-added, or GRP):⁵

$$VA_{c,i,base} = VA_{US,i,base} \frac{Emp_{c,i,base}}{Emp_{US,i,base}}$$

The second step is calculating the change in employment in each industry on a rolling basis, as this data is updated more frequently at the national level. This is calculated as the percentage change in employment nationally in industry i and month m from the base period:

$$\% \Delta Emp_{US,i,m} = \frac{Emp_{US,i,m} - Emp_{US,i,base}}{Emp_{US,i,base}}$$

4 While the three approaches should all yield an equal result in theory, in practice they vary somewhat due to imperfect measurements of their various components.

5 This equation implies that all employees within an industry represent an equal amount of economic output and is thus more accurate for labor-intensive industries than for capital-intensive ones.

By multiplying the above equation by the baseline employment for each industry i in county c , summing over all industries in the county, and then dividing by total baseline county employment, this can be used to calculate the total *estimated* percentage change in county employment in month m :

$$\% \Delta Emp Est_{c,m} = \frac{\sum_i (Emp_{c,i,base} \cdot \% \Delta Emp_{US,i,m})}{\sum_i Emp_{c,i,base}}$$

This gives the change in employment in county c weighted by changes in national employment by industry. However, applying this calculation may not accurately capture the actual change in county employment in month m since it is based on national employment data. The actual percentage change in employment in county c in month m is:

$$\% \Delta Emp_{c,m} = \frac{Emp_{c,m} - Emp_{c,base}}{Emp_{c,base}}$$

The adjusted percentage change in employment in county c for industry i is then calculated as the national percentage change in employment in the industry adjusted by the difference between the actual and estimated change in county employment:

$$\% \Delta Emp Adj_{c,i,m} = \% \Delta Emp_{US,i,m} + (\% \Delta Emp_{c,m} - \% \Delta Emp Est_{c,m})$$

The difference between the actual and estimated change in county employment, or error, is a county-specific constant applied evenly across all industry-specific changes. The adjusted percentage change in county employment by industry represents the prospective change in value-added in industry i in county c . The new potential value-added (based on changes in employment) is then calculated as:

$$VA_{c,i,m} = VA_{c,i,base} (1 + \% \Delta Emp Adj_{c,i,m})$$

The monthly CEPI is represented by the ratio of the new total value-added for county c to its total value-added in the base period:

$$CEPI_{c,m} = \frac{\sum_i VA_{c,i,m}}{\sum_i VA_{c,i,base}}$$

Larger values of the CEPI imply greater overall economic stability or growth. Values equal to 1 imply that a county's economic activity is identical to that of the base period, while values below 1 indicate that the economy is experiencing less economic activity and values over 1 indicate that the economy has greater activity relative to the base period.

As with any economic indicator, the CEPI is not perfect. The sections below detail additional assumptions, notes, and limitations of the approach as well as current data sources and key results.

To allow users to select their own base period for any month since January 2017, the research team used open-source R programming to conduct data processing runs on Argonne's high-performance computing resources.

Data Sources

Table 1: Data sources used to calculate the County Economic Performance Index

Index Data	Data Source	Reference Period
Employment by Industry, US Total	Bureau of Labor Statistics (BLS), Quarterly Census of Employment and Wages (QCEW)	Annual, 2017 – current
Employment by Industry by County	BLS, QCEW	Annual, 2017 – current
Current Employment by Industry (excl. Agriculture), US Total	BLS, Current Employment Statistics (CES): Employment and Earnings, Table B-1a: Employees on nonfarm payrolls by industry sector and selected industry detail, seasonally adjusted	Monthly, Jan '17 – current month
Current Employment (Agriculture), US Total	BLS, Labor Force Statistics from the Current Population Survey (CPS), Table A-7: Employed persons by class of worker and part- time status, seasonally adjusted	Monthly, Jan '17 – current month
Current Employment by County, Total	BLS, Local Area Unemployment Statistics (LAUS): Labor force data by county, not seasonally adjusted, baseline month – baseline month one year later	Monthly, Jan '17 – current month
Detailed Value Added by Industry, US Total (nominal dollars)	Bureau of Economic Analysis, Industry Data: Underlying Detail of Industry Economic Accounts Data: GDP by Industry; U.Value Added by Industry	Annual, 2017 – current
Seasonality Factor by Month and County	BLS, LAUS: Labor force data by county, not seasonally adjusted, January 2008 – Current	Monthly, Jan '08 – current

Additional Notes and Limitations

- The changes in employment are calculated using employment levels rather than unemployment or employment rate, which account for changes in the labor force. The unemployment rate may not reflect the true magnitude of changes in employment due to prolonged changes in the overall labor participation rate. Not accounting for population may not control for large changes in employment in small population areas and may overstate changes in employment relative to the employment rate (similarly, the unemployment rate may understate actual decreases in employment).
- The index represents changes in county employment based on national trends. While these changes are scaled to changes in individual county employment, they may not be representative of actual changes in industry composition at the local level.

- The calculation of county value added assumes that all employees within an industry represent an equal share of that industry's output, which is a better assumption for labor-intensive industries than for capital-intensive industries.
- The BLS employment statistics do not account for self-employed (or "non-employed") individuals, which may represent a significant share of activity in some regions.
- The index accounts for nondisclosed and suppressed employment in industry/county combinations in the BLS/QCEW dataset that have been withheld for purposes of confidentiality. In regions with suppressed data, the index assumes industry employment per establishment within a state is homogenous. See Nondisclosed Data section below for more details.
- The most current index estimates rely on employment projections from the BLS/LAUS dataset, which may be modified as the BLS modifies projections in later months. For example, this implies that new index values for January 2024, made available in March 2024, may change if estimates from the LAUS have been adjusted in the August 2024 release from the BLS.
- While the index estimates monthly value-added by county, it is not intended to represent an estimate of current value-added ahead of those produced by the Bureau of Economic Analysis. It relies on their most recent detailed value-added by industry release.
- The index does not currently account for mobility of individuals between their place of work and their place of residence if they are not in the same county. The BLS/QCEW is a census of establishments that counts where people work, while the BLS/LAUS is based on the Current Population Survey that measures employment based on where people live. For certain regions where significant commuting exists, the CEPI for neighboring counties may be less accurate.

Industry Mapping and Aggregation

The index currently accounts for monthly employment changes in 109 separate industries comprised of industry codes as defined by the North American Industry Classification System (NAICS) codes. The list is comprised of 69 three-digit codes, 27 four-digit codes, 5 two-digit codes, and 8 industry aggregates defined for the purposes of this study, which include separately federal, state, and local government. The government codes, named G1, G2, and G3, respectively, account for employment in all sectors associated with government owned establishments; the remaining 108 industries account for private employment only. See Appendix B for specific industry code and label references.

Agricultural and Farm Employment

The index uses a separate source for employment in the agricultural industry, as farm employment is not included in the BLS/CES data. Seasonally adjusted employment for agriculture and related industries is accounted for by data from the Labor Force Statistics from the Current Population Survey and is used to represent the entirety of NAICS 11 in the index, which includes employment in the entire agricultural sector, such as crop farming, logging, and

fisheries. A monthly data source that separates current employment in these sectors could not be located.

Nondisclosed Data in the QCEW

Due to confidentiality concerns, the BLS withholds employment data for disaggregated industries in counties where specific employers and establishments could potentially be identified in its QCEW dataset. The BLS does, however, report the number of establishments for these industry levels for each county. Nondisclosed data poses a challenge for estimating the economic impact index, since approximately 41 percent of the records matching the industry aggregation are suppressed. To avoid significantly undercounting employment by industry for certain counties and systematically miscalculating the estimated monthly change in county employment ($\% \Delta EmpEst_c$), these values were filled by calculating the average employees per establishment at the state level for each industry and multiplying by the number of establishments in a county (the national average was used in cases where the state-level data is nondisclosed).

Seasonal Adjustment

The index relies on monthly county employment data from the BLS Local Area Unemployment Statistics (LAUS) to adjust estimates of national changes in employment by industry to actual changes in county employment. Because the LAUS relies on data from the Current Population Survey (CPS), a monthly survey of 60,000 households nationwide, the BLS does not provide seasonally adjusted estimates at the county level due to a lack of statistical significance. The estimates themselves are model-based.⁶ However, due to significant seasonal variation in these estimates and in order for changes in a given period to be compared against a baseline period, the seasonality in these estimates needs to be accounted for. Note that the BLS' QCEW also produces seasonally adjusted county employment estimates by month, however, they are not released monthly.

To adjust the LAUS county data for seasonality, the employment for each month and county covering the previous 10-year period prior to baseline month is divided by the annual average employment in the county to obtain a factor representing the ratio of that month's employment to the annual average. The average monthly seasonality factor is then calculated by taking the average of these factors for each month over the previous 10-year period prior to baseline month. For example, in a given county, January employment may on average only be 80% of the annual average, while in July it may be 15% above. The seasonality factors would then be 0.8 and 1.15, respectively (the average factor is 1). The reported employment estimates are then divided by the seasonality factor for each month to arrive at the seasonally adjusted employment estimate. This process smooths the employment data, particularly in regions with significant seasonal variation in employment, in order to better isolate changes in the employment level relative to a specified period.

6 Bureau of Labor Statistics, <https://www.bls.gov/lau/laufaq.htm#Q16>

Special Considerations for Territories

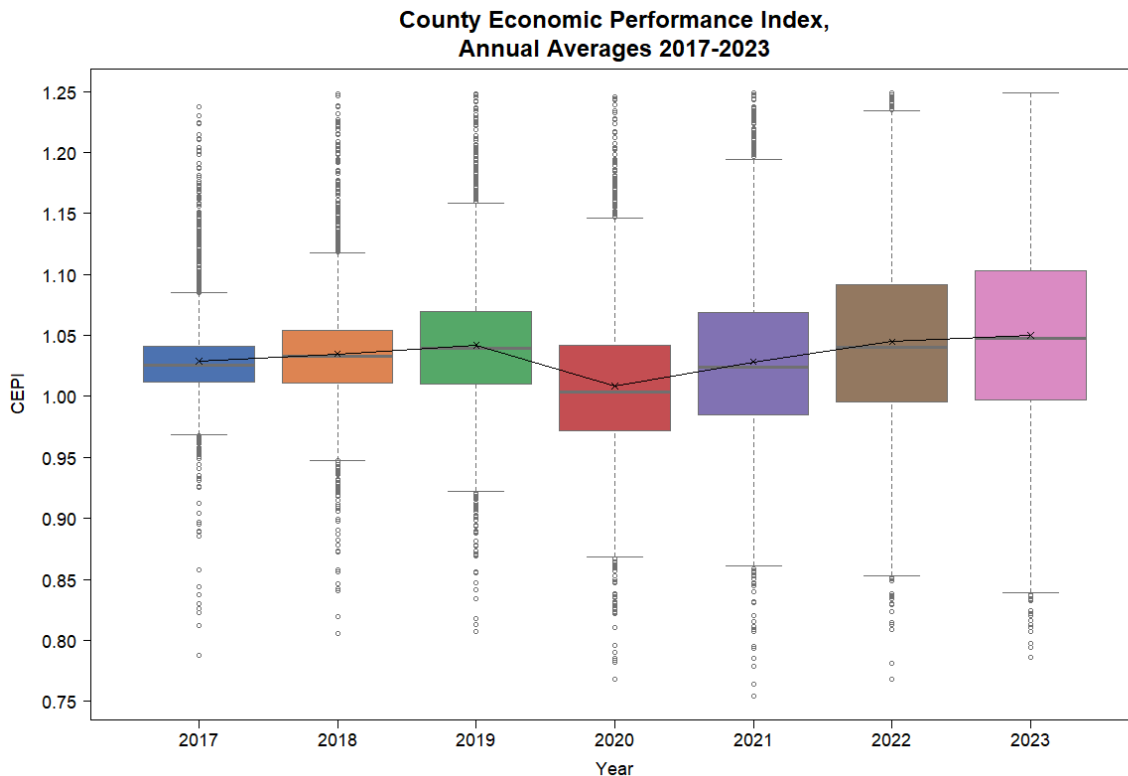
The CEPI dataset includes estimates for Puerto Rico and U.S. Virgin Islands (USVI). For Puerto Rico, estimates are provided for all 78 municipalities (municipios); for USVI, estimates are provided for St. Croix as well as an aggregated region that includes the islands of St. Thomas, St. John, and Water Island. The estimates for Puerto Rico rely on the exact same data sources as the other counties within the CEII; those for the USVI rely on the same data sources as well, however, the LAUS estimates are not provided by the BLS and are instead provided by the USVI Department of Labor.

U.S. GDP estimates do not include economic output from the U.S. territories or freely associated states. Because the CEPI calculates local value added by industry as the share of the national value added in that industry made up by local industry employment, the value added by industry for Puerto Rico and USVI regions do not actually represent a portion of the U.S. GDP (i.e. if one were to sum up the total value added from all counties, it would equal the total U.S. value added). Rather the CEPI assumes that the average output per worker for an industry is the same in Puerto Rico and the USVI as it is for the states.

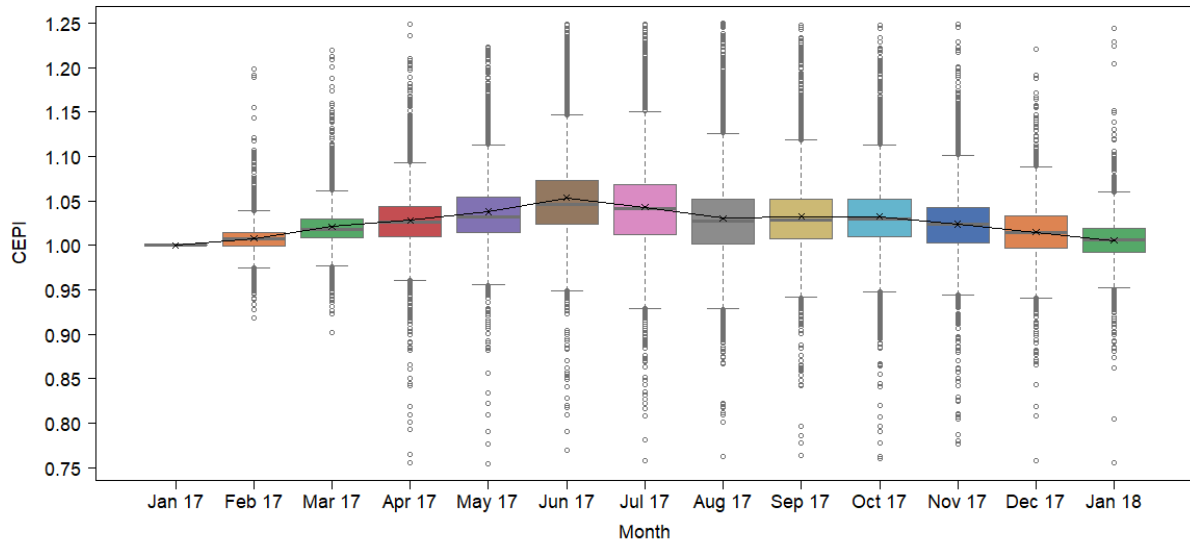
Pacific Island territories, which include Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands, are not included in the CEPI.

Key Results

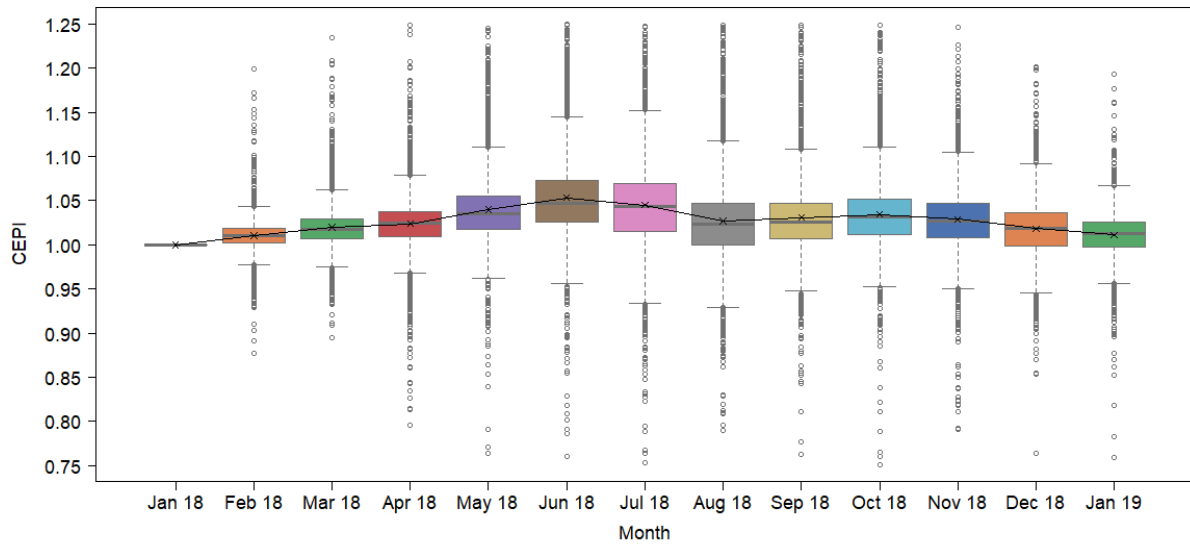
The following section shows select CEPI results for different time periods starting in 2017. Users can select their own base periods within the National Economic Resilience Data Explorer tool to study county-level economic performance over time.



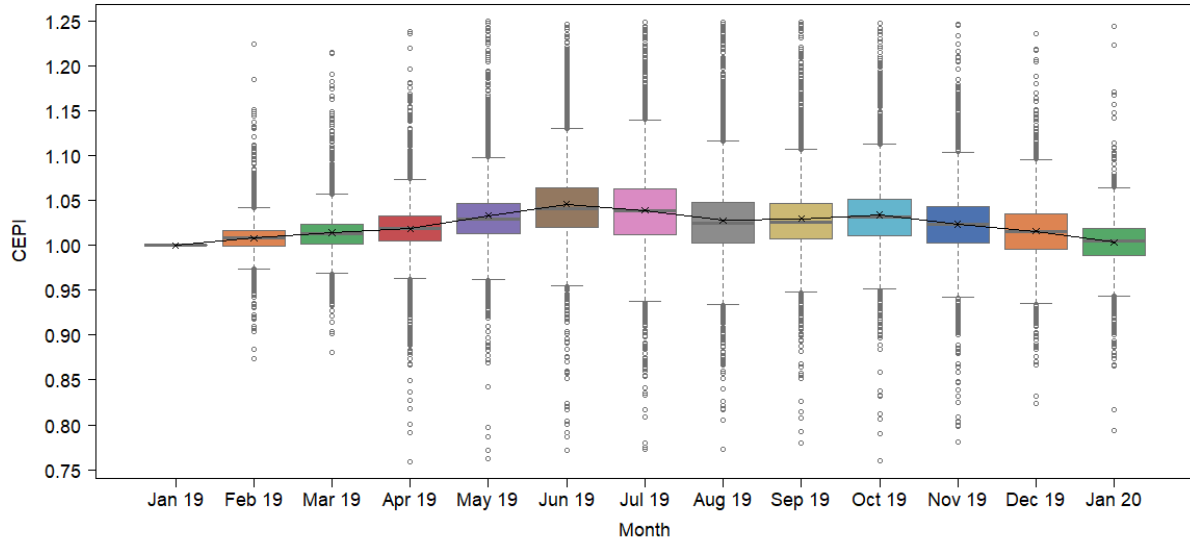
County Economic Performance Index,
Month Values 2017-2018



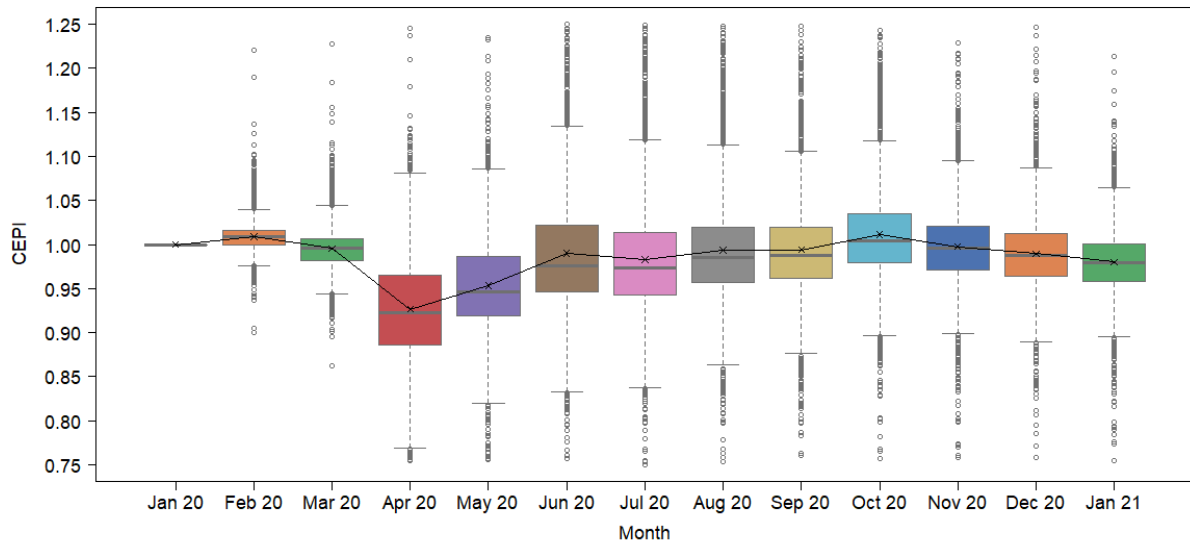
County Economic Performance Index,
Month Values 2018-2019



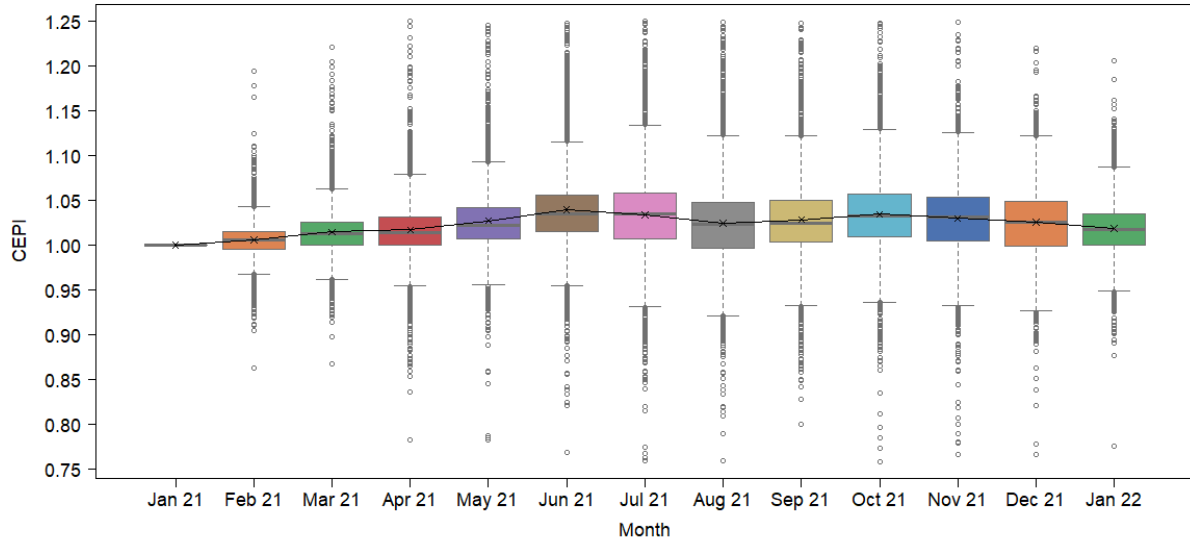
County Economic Performance Index,
Month Values 2019-2020



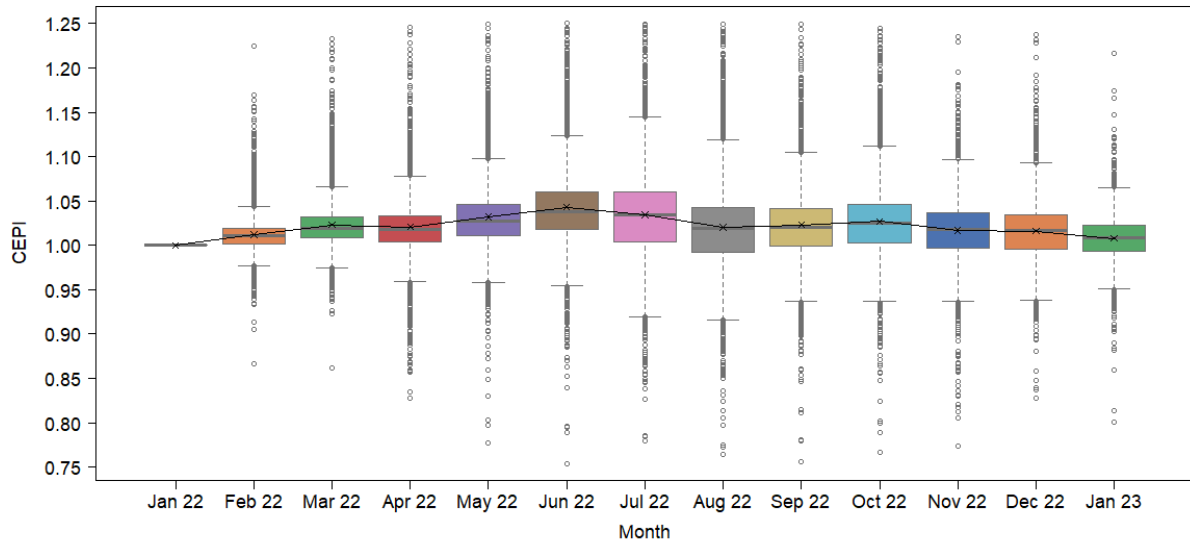
County Economic Performance Index,
Month Values 2020-2021

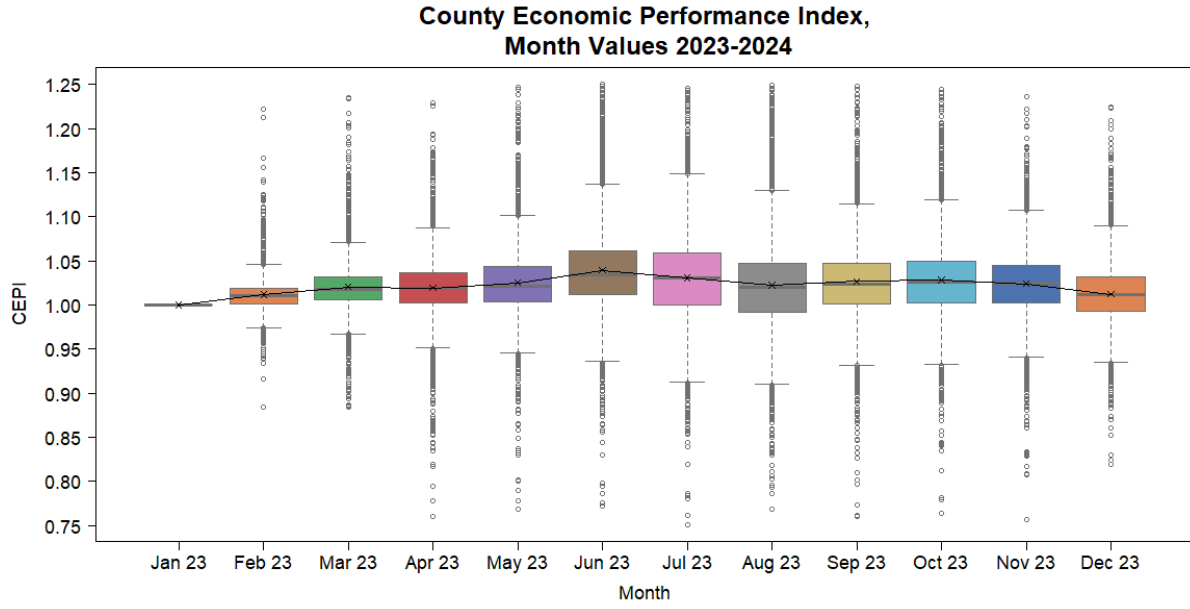


County Economic Performance Index,
Month Values 2021-2022



County Economic Performance Index,
Month Values 2022-2023





Appendix A: Data Dictionary

The following table describes the data columns provided in the index data file.

Table 2: Data Definitions

Column Name	Units	Description
area_fips	-	Unique FIPS code representing each county
state	-	State name
county	-	County name
va_base	Billions USD	Total estimated value-added (sum of all industries) by county for base month (January 2020)
va_[month]	Billions USD	Total estimated value-added (sum of all industries) by county for [month]
pcEmpAct_[month]	Proportion	Percentage change in county employment in [month] from the base month (January 2020); calculated from the BLS/LAUS county-level data
index_[month]	Proportion	Economic impact index by county for [month]
naics	-	Unique industry code corresponding to the North American Industry Classification System (NAICS)
naics_label	-	Industry name corresponding to the NAICS code
va_base	Billions USD	Estimated value-added by industry by county for base month (January)
va_[month]	Billions USD	Estimated value-added by industry by county for [month]
pcEmpUS_[month]	Proportion	National percentage change in employment by industry in [month] from the base month (January 2020); calculated from the BLS/CES data
pcEmpAdj_[month]	Proportion	Adjusted percentage change in employment by industry by county for [month] from the base month (January 2020); calculated as documented above

Appendix B: Industry Mappings

The following table includes the industry codes and labels used in CEPI calculations.

Table 3: Industry Mappings

Industry Code	Industry Label
11	Agriculture, forestry, fishing and hunting
211	Oil and gas extraction
212	Mining, except oil and gas
213	Support activities for mining
22	Utilities
23	Construction
311	Food manufacturing
3121	Beverage manufacturing
313	Textile mills
314	Textile product mills
315	Apparel manufacturing
31b	Miscellaneous nondurable goods manufacturing
321	Wood products
322	Paper and paper products
323	Printing and related support activities
324	Petroleum and coal products
325	Chemicals
326	Plastics and rubber products
327	Nonmetallic mineral products
331	Primary metals
332	Fabricated metal products

Industry Code	Industry Label
333	Machinery
3341	Computer and peripheral equipment
3342	Communications equipment
3344	Semiconductors and electronic components
3345	Electronic instruments
334b	Miscellaneous computer and electronic products
335	Electrical equipment and appliances
336a	Motor vehicles and parts
336b	Other transportation equipment
337	Furniture and related products
339	Miscellaneous durable goods manufacturing
423	Durable goods
424	Nondurable goods
425	Electronic markets and agents and brokers
441	Motor vehicle and parts dealers
442	Furniture and home furnishings stores
443	Electronics and appliance stores
444	Building material and garden supply stores
445	Food and beverage stores
446	Health and personal care stores
447	Gasoline stations
448	Clothing and clothing accessories stores
451	Sporting goods, hobby, book, and music stores
452	General merchandise stores

Industry Code	Industry Label
453	Miscellaneous store retailers
454	Nonstore retailers
481	Air transportation
482	Rail transportation
483	Water transportation
484	Truck transportation
485	Transit and ground passenger transportation
486	Pipeline transportation
487	Scenic and sightseeing transportation
488	Support activities for transportation
492	Couriers and messengers
493	Warehousing and storage
511	Publishing industries, except internet
512	Motion picture and sound recording industries
515	Broadcasting, except internet
517	Telecommunications
518	Data processing, hosting and related services
519	Other information services
521	Monetary authorities - central bank
522	Credit intermediation and related activities
524	Insurance carriers and related activities
52b	Securities, commodity contracts, investments, and funds and trusts
531	Real estate
532	Rental and leasing services

Industry Code	Industry Label
533	Lessors of nonfinancial intangible assets
5411	Legal services
5412	Accounting and bookkeeping services
5413	Architectural and engineering services
5414	Specialized design services
5415	Computer systems design and related services
5416	Management and technical consulting services
5417	Scientific research and development services
5418	Advertising and related services
5419	Other professional and technical services
55	Management of companies and enterprises
5611	Office administrative services
5612	Facilities support services
5613	Employment services
5614	Business support services
5615	Travel arrangement and reservation services
5616	Investigation and security services
5617	Services to buildings and dwellings
5619	Other support services
562	Waste management and remediation services
61	Educational services
6211	Offices of physicians
6212	Offices of dentists
6213	Offices of other health practitioners

Industry Code	Industry Label
6214	Outpatient care centers
6219	Other ambulatory health care services
622	Hospitals
623	Nursing and residential care facilities
624	Social assistance
711	Performing arts and spectator sports
712	Museums, historical sites, and similar institutions
713	Amusements, gambling, and recreation
721	Accommodation
722	Food services and drinking places
811	Repair and maintenance
812	Personal and laundry services
813	Membership associations and organizations
G1	Federal government
G2	State government
G3	Local government



**National Economic Research and Resilience Center
Decision and Infrastructure Sciences Division, Argonne National Laboratory**

Argonne National Laboratory
9700 South Cass Avenue, Bldg. 221
Argonne, IL 60439

www.anl.gov



Argonne National Laboratory is a U.S. Department of Energy
laboratory managed by UChicago Argonne, LLC